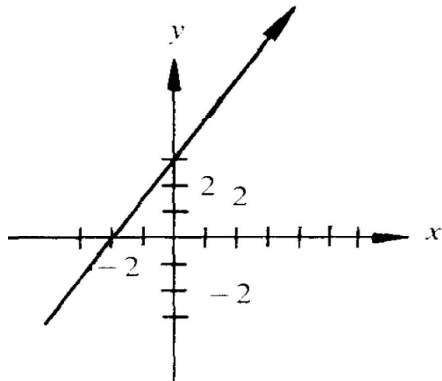


## Orientation Exercises 10

1. Which ordered pair represents a point that lies on the given graph?



- ~~A. (3, 0)~~
- ~~B. (1, 2)~~
- C. (2, 6)
- ~~D. (-1, 1)~~
- ~~E. (-2, 6)~~

2. The lines  $y = 3$  and  $x = 6$  intersect at what point?

- A. (3, 6)
- B. (6, 3)
- C. (0, 0)
- D. (3, 0)
- E. (0, 3)

(6, 3)

3. Which of the following is the radius of a circle whose equation is  $x^2 + y^2 = 100$ ?

- A. 1
- B. 10
- C. 20
- D. 50
- E. 100

$r = \sqrt{100}$

4. Which of the following is the radius of a circle whose equation is  $x^2 + y^2 = 5$ ?

- A. -25
- B. -5
- C.  $\sqrt{5}$
- D. 5
- E. 25

$r = \sqrt{5}$

5. Identify the graph of the quadratic equation  $y^2 - 4x^2 = 16$ .

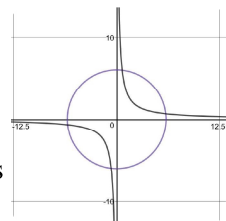
- A. Parabola
- B. Hyperbola
- C. Circle
- D. Ellipse
- E. Two intersecting lines

6. Identify the graph of the quadratic equation  $y^2 + x^2 = 36$ .

- A. Parabola
- B. Hyperbola
- C. Circle
- D. Ellipse
- E. Line

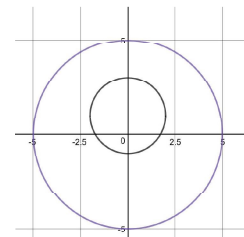
7. The graphs of  $x^2 + y^2 = 36$  and  $xy = 4$  have:

- A. no intersections
- B. two intersections
- C. three intersections
- D. four intersections
- E. more than four intersections

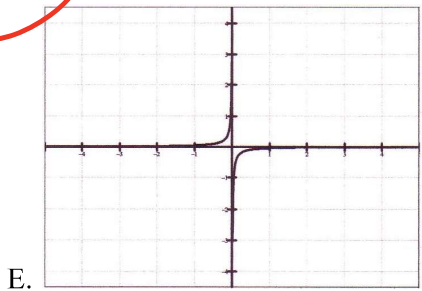
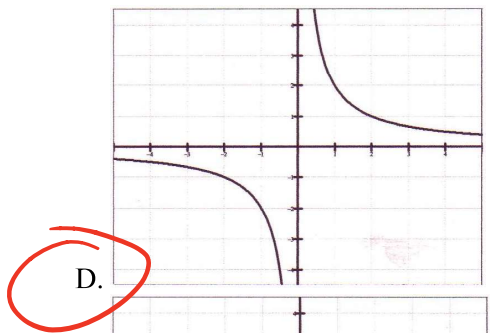
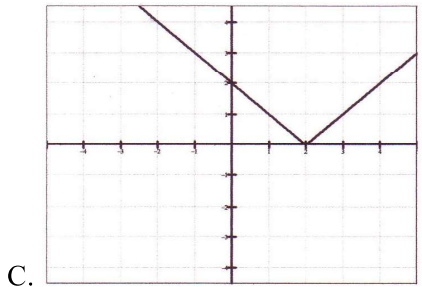
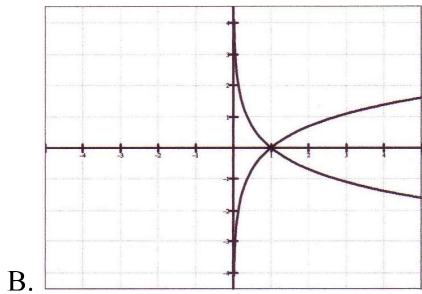
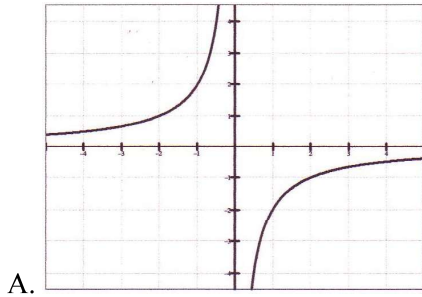


8. How many solutions does the quadratic system  $x^2 + y^2 = 25$  and  $x^2 + (y - 1)^2 = 4$  have?

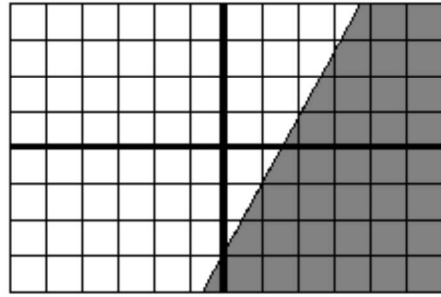
- A. 1
- B. 2
- C. 3
- D. 4
- E. None



9. Which graph below is the graph of  $xy = 2$ ?



10. The inequality graphed below is:



~~A.~~  $2x - y \leq 3$

**B.**  $x - y \geq 3$

~~C.~~  $3x + y < 3$

~~D.~~  $2x + y \leq 3$

~~E.~~  $2x - 3y \geq 0$

$-y \leq 2x + 3 \Rightarrow y \geq -2x - 3$

$-y \geq -x + 3 \Rightarrow y \leq x - 3$

$y \leq -2x + 3$

$-3y \geq -2x \Rightarrow y \leq \frac{2}{3}x$

Closet